

**Siefke, Samuel**

**From:** Soderquist, Arlen  
**Sent:** Wednesday, February 09, 2005 4:22 PM  
**To:** Siefke, Samuel

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 01 New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!  
NEWS 4 OCT 28 KOREAPAT now available on STN  
NEWS 5 NOV 30 PHAR reloaded with additional data  
NEWS 6 DEC 01 LISA now available on STN  
NEWS 7 DEC 09 12 databases to be removed from STN on December 31, 2004  
NEWS 8 DEC 15 MEDLINE update schedule for December 2004  
NEWS 9 DEC 17 ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 10 DEC 17 COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 11 DEC 17 SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 12 DEC 17 CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 13 DEC 17 THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB  
NEWS 14 DEC 30 EPFULL: New patent full text database to be available on STN  
NEWS 15 DEC 30 CAPLUS - PATENT COVERAGE EXPANDED  
NEWS 16 JAN 03 No connect-hour charges in EPFULL during January and February 2005  
NEWS 17 JAN 26 CA/CAPLUS - Expanded patent coverage to include the Russian Agency for Patents and Trademarks (ROSPATENT)  
  
NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 16:15:27 ON 09 FEB 2005

FULL ESTIMATED COST

ENTRY 0.21 SESSION 0.21

FILE 'CA' ENTERED AT 16:15:36 ON 09 FEB 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 3 Feb 2005 VOL 142 ISS 7  
FILE LAST UPDATED: 3 Feb 2005 (20050203/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s amino acid homopolymers/ti and capillary gel electrophoresis/ti
    180603 AMINO/TI
        6 AMINOS/TI
    180607 AMINO/TI
        ((AMINO OR AMINOS)/TI)
    788601 ACID/TI
    261645 ACIDS/TI
    1029410 ACID/TI
        ((ACID OR ACIDS)/TI)
    1180 HOMOPOLYMERS/TI
        11 AMINO ACID HOMOPOLYMERS/TI
        ((AMINO(W)ACID(W)HOMOPOLYMERS)/TI)
    37582 CAPILLARY/TI
    2379 CAPILLARIES/TI
    39722 CAPILLARY/TI
        ((CAPILLARY OR CAPILLARIES)/TI)
    65915 GEL/TI
    18609 GELS/TI
    83742 GEL/TI
        ((GEL OR GELS)/TI)
    37426 ELECTROPHORESIS/TI
    242 CAPILLARY GEL ELECTROPHORESIS/TI
        ((CAPILLARY(W)GEL(W)ELECTROPHORESIS)/TI)
L1          1 AMINO ACID HOMOPOLYMERS/TI AND CAPILLARY GEL ELECTROPHORESIS/TI
```

=> d his

(FILE 'HOME' ENTERED AT 16:15:27 ON 09 FEB 2005)

FILE 'CA' ENTERED AT 16:15:36 ON 09 FEB 2005
L1 1 S AMINO ACID HOMOPOLYMERS/TI AND CAPILLARY GEL ELECTROPHORESIS/

=> d bib,ab

L1 ANSWER 1 OF 1 CA COPYRIGHT 2005 ACS on STN
Full Text <[http://chemport.cas.org/cgi-bin/cp\\_sdcgi?fjap4TPzj4iTohLT5UiKGUGz2on1YjWJbfZI83nrYQx69JYBvxmMRFDQYLWLbqZKHDCQRSi2gNpc9VdR5B10R1LXEnVvkCtOJ7yRjxsmNhM9bAj5RHnvdDTabvDoNXmVwUYHKSezG6fGixRP6OP7PEEGEA](http://chemport.cas.org/cgi-bin/cp_sdcgi?fjap4TPzj4iTohLT5UiKGUGz2on1YjWJbfZI83nrYQx69JYBvxmMRFDQYLWLbqZKHDCQRSi2gNpc9VdR5B10R1LXEnVvkCtOJ7yRjxsmNhM9bAj5RHnvdDTabvDoNXmVwUYHKSezG6fGixRP6OP7PEEGEA)>
AN 118:142831 CA

TI Separation of amino acid homopolymers by capillary gel electrophoresis  
AU Dolnik, Vladislav; Novotny, Milos V.  
CS Dep. Chem., Indiana Univ., Bloomington, IN, 47405, USA  
SO Analytical Chemistry (1993), 65(5), 563-7  
CODEN: ANCHAM; ISSN: 0003-2700  
DT Journal  
LA English  
AB Gel-filled capillaries using highly concd. and moderately cross-linked acrylamide-type gels in capillary electrophoresis were successfully applied to the sepn. of the individual oligomers of various poly(amino acids). Mixts. of both anionic and cationic nature were adequately resolved. While UV detection at 220 nm was mostly used, the polyanions with N-terminal groups can also be tagged with 3-(4-carboxybenzyl)-2-quinolincarboxaldehyde (CDQCA) for a more sensitive detection by a laser-induced fluorescence detector.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	14.17	14.38
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.68	-0.68

STN INTERNATIONAL LOGOFF AT 16:16:49 ON 09 FEB 2005

## STN Columbus

L4 2364 L3 OR POLYASPARTIC OR POLYASPARTATE OR POLY(2A) (ASPARTIC OR  
ASPARTATE)  
L6 137 L4(5A) (DETECT? OR DETERMIN? OR MEASUR? OR MONITOR? OR ASSAY? OR  
TEST? OR ANALY? OR ESTIMAT? OR EVALUAT? OR SENSE# OR SENSOR OR  
SENSING OR IDENTIF? OR PROBE# OR PROBING OR QUANTITAT? OR QUANTI  
F? OR ASSESS? OR EXAMIN? OR CHECK?)

=> d his

(FILE 'HOME' ENTERED AT 15:29:48 ON 09 FEB 2005)  
FILE 'REGISTRY' ENTERED AT 15:29:58 ON 09 FEB 2005  
L1 263 S ASPARTIC ACID AND HOMOPOLYMER  
L2 115 S L1 NOT ESTER  
L3 99 S L2 NOT COMPD  
FILE 'CA' ENTERED AT 15:41:32 ON 09 FEB 2005  
L4 2364 S L3 OR POLYASPARTIC OR POLYASPARTATE OR POLY(2A) (ASPARTIC OR A  
L5 76 S L4 AND(FLUORESCEN? OR FLUORIMET? OR FLORIMET?)  
L6 137 S L4(5A) (DETECT? OR DETERMIN? OR MEASUR? OR MONITOR? OR ASSAY?  
L7 10 S L5 AND L6  
L8 12 S L6 AND(WASTEWATER OR SCALE OR DRILLING OR SUGAR)  
L9 22 S L7-8

=> d 19 bib,ab 1-22

L9 ANSWER 1 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 141:370174 CA  
TI Research on the performance of calcium sulphate **scale** inhibition by  
polyaspartic acid and its combinations  
AU Shao, Hui; Leng, Yixin  
CS Jiangsu Institute of Petrochemical Technology, Changzhou, 210016, Peop.  
Rep. China  
SO Gongye Shuichuli (2003), 23(7), 30-32  
CODEN: GOSHFA; ISSN: 1005-829X  
PB Gongye Shuichuli Zazhishe  
DT Journal  
LA Chinese  
AB Polyaspartic acid was prep'd. by thermal polymn. of L-aspartic acid, which  
can be hydrolyzed to its Na salt. The relative mol. wt. (Mw) was measured  
with GPC. The inhibition rate to CaSO<sub>4</sub> **scale** was up to 90%, as the  
dosage of polyaspartic acid reached 4 mg L-1. It was better than that of  
polymaleic acid and polyacrylic acid. The amt. of the combination of  
polyaspartic acid and Na citrate was 5 mg L-1, the inhibition rate reached  
90%, and that of polyaspartic acid and Na<sub>5</sub>P<sub>3</sub>O<sub>10</sub> was up to 88%.  
Polyaspartic acid and its combinations were perfect to be applied in high  
temp. water system.

L9 ANSWER 2 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 141:42846 CA  
TI Polyion complex micelles entrapping cationic dendrimer porphyrin:  
effective photosensitizer for photodynamic therapy of cancer  
AU Zhang, Guo-Dong; Harada, Atsushi; Nishiyama, Nobuhiro; Jiang, Dong-Lin;  
Koyama, Hiroyuki; Aida, Takuzo; Kataoka, Kazunori  
CS Graduate School of Engineering, Department of Materials Science and  
Engineering, The University of Tokyo, Bunkyo-ku, Tokyo, 113-8656, Japan  
SO Journal of Controlled Release (2003), 93(2), 141-150  
CODEN: JCREEC; ISSN: 0168-3659  
PB Elsevier  
DT Journal

LA English

AB Photosensitizers play a crucial role in the photodynamic therapy (PDT) of cancer. In this study, a third-generation aryl ether dendrimer porphyrin with 32 primary amine groups on the periphery,  $[\text{NH}_2\text{CH}_2\text{CH}_2\text{NHCO}]_{32}\text{DPZn}$ , and pH-sensitive, polyion complex micelles (PIC) composed of the porphyrin dendrimer and PEG-*b*-**poly(aspartic acid)**, were evaluated as new photosensitizers (PSs) for PDT in the Lewis Lung Carcinoma (LLC) cell line. The preliminary photophys. characteristics of  $[\text{NH}_2\text{CH}_2\text{CH}_2\text{NHCO}]_{32}\text{DPZn}$  and the corresponding micelles were investigated. Electrostatic assembly resulted in a red-shift of the Soret peak of the porphyrin core and the enhanced fluorescence. Compared to the dendrimer porphyrin  $[\text{NH}_2\text{CH}_2\text{CH}_2\text{NHCO}]_{32}\text{DPZn}$ , relatively low cellular uptake of dendrimer porphyrin  $[\text{NH}_2\text{CH}_2\text{CH}_2\text{NHCO}]_{32}\text{DPZn}$  incorporated in the PIC micelle was obsd., yet the latter exhibited enhanced photodynamic efficacy on the LLC cell line. Importantly, the use of PIC micelles as a delivery system reduced the dark toxicity of the cationic dendrimer porphyrin, probably due to the biocompatible PEG shell of the micelles.

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 140:411913 CA

TI Evaluation method of biodegradability of **polyaspartic** acids-like scale inhibitors

AU Huang, Yuan-xing; Lei, Zhong-fang

CS Department of Environmental Science and Engineering, Fudan University, Shanghai, 200433, Peop. Rep. China

SO Fudan Xuebao, Ziran Kexueban (2003), 42(6), 1053-1057  
CODEN: FHPTAY; ISSN: 0427-7104

PB Fudan Daxue Chubanshe

DT Journal

LA Chinese

AB A new evaluation method, shaking-bottle incubating test, is introduced to assess the biodegradability of **polyaspartic** acids (PASP). Besides, the corresponding evaluation stds. are also proposed, with which the biodegradability of 10 kinds of PASP have been obtained.

L9 ANSWER 4 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 139:130240 CA

TI Enhancing microdialysis recovery of metal ions by incorporating poly-L-aspartic acid and poly-L-histidine in the perfusion liquid

AU Mogopodi, Dikabo; Torto, Nelson

CS Department of Chemistry, University of Botswana, Gaborone, 00704, Botswana

SO Analytica Chimica Acta (2003), 482(1), 91-97  
CODEN: ACACAM; ISSN: 0003-2670

PB Elsevier Science B.V.

DT Journal

LA English

AB A study of the evaluation of poly-L-aspartic acid and poly-L-histidine as binding agents to enhance microdialysis recovery of metal ions is presented. Investigations were carried out to compare microdialysis recovery for Cr, Cu, Ni, and Pb when using water as the perfusion liq. as well as when using various concns. of poly-L-aspartic acid and poly-L-histidine in the perfusion liq. All expts. were carried out under quiescent conditions using a concentric type of microdialysis probe fitted with a polysulfone membrane having a 30 kDa mol. wt. cut-off and a 10 mm effective dialysis length. The metal ions were detd. using an electrothermal at. absorption spectrometer equipped with a Zeemann

## STN Columbus

background corrector. Incorporation of 0.032% (w/v) of poly-L-aspartic acid enhanced the recovery of Cu and Pb by factors of 90 and 64%, resp. (%RSD<3). The recovery of Cr was enhanced by 5%, but that of Ni never exceeded values achieved using ultra pure water. The use of 20% (w/v) of poly-L-histidine resulted in enhancement factors of 66 and 4% for Cu and Pb, resp. (%RSD<2). For both Cr and Ni, the recovery never exceeded that achieved with water. The data from these studies demonstrate the suitability of poly-L-aspartic and poly-L-histidine as selective and effective binding agents that enhance the microdialysis recovery of metal ions. Application of the optimized conditions to the detn. of Pb and Cu in a **wastewater** sample confirmed the versatility of microdialysis, as higher recoveries of Cu were obtained with **poly-L-aspartic acid** compared to direct **detn.**

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 138:340522 CA

TI Thermal polyaspartates as dual function corrosion and mineral **scale** inhibitors

AU Fan, Joseph C.; Fan, Lai Duen Grace; Liu, Quing Wei; Reyes, Hector

CS Donlar BioPolymers, Inc., Bedford Park, IL, 60501, USA

SO Polymeric Materials Science and Engineering (2001), 84, 426-427  
CODEN: PMSEDG; ISSN: 0743-0515

PB American Chemical Society

DT Journal

LA English

AB **Poly(aspartic acid)**-based chems. were **evaluated** as environmentally friendly and biodegradable oil-field chems. for use as corrosion inhibitors and **scale** inhibitors in brine-injection petroleum recovery, esp. with respect to calcium compatibility and their effect on oil-water sepn., in the presence of a no. of different brines (esp. North Sea brines). At pH 5, poly(aspartates) was resistant to pptn. at a Ca<sup>2+</sup> concns. of 8500 ppm and 7500 ppm, in comparison to a Ca<sup>2+</sup> concn. of 5000 ppm for phosphonate and maleic acid polymer products. At a 5 wt.% concn. of the poly(aspartates), the Ca<sup>2+</sup> compatibility was superior to the phosphonate and maleic acid polymer products. At the 5 ppm level, the **poly(aspartates)** outperformed all other inhibitors **tested** for **scale** control capacity. The poly(aspartates) also did not interfere with the oil-water sepn. process.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 138:281720 CA

TI LightCycler qPCR optimization for low copy number target DNA

AU Teo, I. A.; Choi, J. W.; Morlese, J.; Taylor, G.; Shaunak, S.

CS Faculty of Medicine, Division of Investigative Science, Department of Infectious Diseases, Imperial College at Hammersmith Hospital, London, W12 0NN, UK

SO Journal of Immunological Methods (2002), 270(1), 119-133  
CODEN: JIMMBG; ISSN: 0022-1759

PB Elsevier Science B.V.

DT Journal

LA English

AB The LightCycler is a rapid air-heated thermal cycler which incorporates a fluorometer for the detection and quantification of Polymerase Chain Reaction (PCR) amplified products. It provides real-time cycle-by-cycle

## STN Columbus

anal. of product generation. Amplification occurs in glass capillary tubes. The products are detected using a **fluorescent** double stranded DNA binding dye or **fluorescent** probes. However, conditions that work well in conventional PCR reactions do not readily translate to the LightCycler. While using this new technol. to study an infectious pathogen in human tissue samples, several parameters were identified which can have an adverse effect on the reliable and reproducible quantification of low copy no. target DNA. They included abstraction of PCR reagents on glass, primer-dimer formation, non-specific product generation, and a failure to amplify low copy no. target when it is present in a high background of human chromosomal DNA. For each problem identified, several solns. are described. Novel approaches are also described to ensure that amplification of target DNA and of the quantification stds. occurs with the same efficiency. With appropriate changes to the protocols currently in use, LightCycler quant. Polymerase Chain Reaction (LC-qPCR) can be used to achieve a level of accuracy that exceeds that of an enzyme immunoassay. The LC-qPCR optimization strategies described are of particular relevance when applying this technol. to the study of pathogens in tissue samples. The technique offers the enormous potential for reliable and reproducible quant. PCR of low copy no. target DNA.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 137:152017 CA

TI High throughput assay for monitoring polycation or polyanion molecular weight, degradation or synthesis

IN Mayer, Raphael; Shemesh, Simha; Ayal-Hershkovitz, Maty

PA Insight Strategy and Marketing Ltd., Israel

SO U.S. Pat. Appl. Publ., 27 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002115071	A1	20020822	US 2001-753692	20010104
	US 6630295	B2	20031007		

PRAI US 2001-753692

20010104

AB A method of testing an agent for its potential at modulating induction of a mol. wt. change of a first polyion is disclosed. The method is effected by (a) subjecting the first polyion to conditions under-which the first polyion undergoing the mol. wt. change in a presence, in an absence or under several different concns. of the agent; (b) interacting the first polyion with a second polyion having an opposite charge, the second polyion being **fluorescently** labeled; (c) providing reaction conditions so as to allow mol. wt. discriminative interaction between the first polyion and the second polyion; and (d) employing a **fluorescence** polarization assay for detg. a modulating effect of the agent on the induction of the mol. wt. change of the first polyion.

L9 ANSWER 8 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 136:379295 CA

TI Methods for the determination of **polyaspartic** acid in liquid media using laser **fluorescence** spectroscopy

IN Huthuff, Sven; Hertel, Martin

PA H & W Optical Instruments Gmbh, Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10053864	A1	20020516	DE 2000-10053864	20001027
PRAI	DE 2000-10053864		20001027		

AB Methods for the **detn.** of **polyaspartic** acid or its derivs. in aq. formulations and liq. media by **fluorescence** spectroscopy are described which entail the use of a laser to induce the **fluorescence**.

L9 ANSWER 9 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 136:217235 CA

TI Determining concentrations of **polyaspartic** acid by fluorometry

IN Klein, Thomas; Klaus, Thomas; Elschner, Andreas; Moritz, Ralf-johann; Cordes, Monika

PA Bayer Aktiengesellschaft, Germany

SO PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018458	A1	20020307	WO 2001-EP9557	20010820
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10042498	A1	20020411	DE 2000-10042498	20000830
	AU 2001082104	A5	20020313	AU 2001-82104	20010820
	EP 1315762	A1	20030604	EP 2001-960679	20010820
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2002077262	A1	20020620	US 2001-939131	20010824
PRAI	DE 2000-10042498	A	20000830		
	WO 2001-EP9557	W	20010820		

AB In the title process, esp. useful in **detg. poly(aspartic acid) (I)** in use as a **scale** inhibitor in water treatment, concns. of I or its salts of 0.1-1000 ppm are detd. by fluorometry.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 136:118805 CA

TI Polyaspartate and its **scale**-inhibition

AU Shao, Hui; Leng, Yi-xin

CS Department of Chemical Engineering, Jiangsu Institute of Petrochemical Technology, Changzhou, 213016, Peop. Rep. China

SO Jiangsu Shiyou Huagong Xueyuan Xuebao (2001), 13(1), 18-20

CODEN: JSHXFU; ISSN: 1005-8893

PB Jiangsu Shiyou Huagong Xueyuan Xuebao Bianjibu

DT Journal  
 LA Chinese  
 AB This article presents a lab. synthetic method of the thermal polymn. of maleic acid and ammonia. Static method is used to **evaluate** **polyaspartate** inhibitor of calcium carbonate **scales**. Transmittance technique is used to **evaluate polyaspartate** dispersing iron oxide. The exptl. results showed that the copolymer had high efficiency of **scale**-inhibition and dispersing iron oxide for cooling water treatment.

L9 ANSWER 11 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 135:36624 CA  
 TI Comparison and **evaluation** of the synthetic biopolymer **poly-L-aspartic** acid and the synthetic "plastic" polymer poly-acrylic acid for use in metal ion-exchange systems  
 AU Miller, T. C.; Holcombe, J. A.  
 CS Department of Chemistry and Biochemistry, University of Texas at Austin, Austin, TX, 78712, USA  
 SO Journal of Hazardous Materials (2001), 83(3), 219-236  
 CODEN: JHMAD9; ISSN: 0304-3894  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 AB Poly-L-aspartic acid (PLAsp), a biopolymer, and a similar synthetic polymer, poly-acrylic acid (PAA), each consisting of ~50 repeating Asp and acrylic acid monomers, resp., were immobilized onto controlled pore glass (CPG) and evaluated for use as metal ion-exchange materials. Both polymers achieve metal complexation primarily through their repeating carboxylate side groups resulting in a similar binding trend for the metals tested (Ca<sup>2+</sup>, Cd<sup>2+</sup>, Co<sup>2+</sup>, Cu<sup>2+</sup>, Mg<sup>2+</sup>, Mn<sup>2+</sup>, Na<sup>+</sup>, Ni<sup>2+</sup>, Pb<sup>2+</sup>), with metal binding capacities <0.1-12 μmol metal/g column and <0.1-32 μmol metal/g column for PLAsp and PAA, resp. Cu<sup>2+</sup> and Pb<sup>2+</sup> exhibited strong binding to both materials, while the other metals demonstrated only weak or minimal binding. Both columns allowed for quant. release of bound metals through acid stripping and experienced increased overall metal binding with increasing pH. Both systems also maintained similar structural and chem. stability when continuously exposed to neutral buffered, highly acidic, oxidizing, large mol. rich, and elevated temp. environments. The main differences between the two systems are the material cost and system biodegradability.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 134:337936 CA  
 TI Method of measuring physiological function  
 IN Dorshow, Richard Bradley; Achilefu, Samuel; Rajagopalan, Raghavan; Bugaj, Joseph Edward  
 PA Mallinckrodt Inc., USA  
 SO U.S., 20 pp., Cont.-in-part of U.S. 5,928,625.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6228344	B1	20010508	US 1999-258148	19990226
	US 5928625	A	19990727	US 1997-816332	19970313
	CA 2360421	AA	20000831	CA 2000-2360421	20000120

## STN Columbus

WO 2000050093	A1	20000831	WO 2000-US1322	20000120
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1154802	A1	20011121	EP 2000-902449	20000120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002537363	T2	20021105	JP 2000-600703	20000120
US 6280703	B1	20010828	US 2000-519455	20000306
PRAI US 1997-816332	A2	19970313		
US 1999-258148	A	19990226		
WO 2000-US1322	W	20000120		

AB A method of measuring physiol. function of a group of body cells, includes the step of selecting a detectable agent capable of emitting a measurable electromagnetic emission. The agent is introduced into body fluid which contacts the group of body cells. The emission is measured, and physiol. function is detd. based on measurement of the emission.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 134:256523 CA  
 TI Development of environmentally benign **scale** inhibitors for industrial applications  
 AU Hater, Wolfgang; Mayer, Bernd; Schweinsberg, Matthias  
 CS Germany  
 SO PowerPlant Chemistry (2000), 2(12), 721-724, 752-755  
 CODEN: POCHFT; ISSN: 1438-5325  
 PB PowerPlant Chemistry GmbH  
 DT Journal  
 LA English  
 AB Polyaspartic acid and polysaccharide derivs. were used as starting materials for the development of an ecol. sound **scale** inhibitor. BaSO<sub>4</sub>, CaSO<sub>4</sub>, and CaCO<sub>3</sub> stabilization was tested and the results were compared with those of products based on phosphonic acids. Of all the inhibitors tested, only **polyaspartates** exhibit good **scale** inhibition against all 3 minerals, whereas phosphonates are completely ineffective against CaSO<sub>4</sub> and saccharides exhibit inferior inhibition against BaSO<sub>4</sub> **scale**. Two field tests on the application of inhibitors on the base of polyaspartates are described: BaSO<sub>4</sub> inhibition in coal mine drainage and CaSO<sub>4</sub> inhibition at a power station.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 14 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 133:205084 CA  
 TI In vivo method of measuring kidney or liver function with **fluorescent** dye clearance  
 IN Dorshow, Richard Bradley; Achilefu, Samuel; Rajagopalan, Raghavan; Bugaj, Joseph Edward  
 PA Mallinckrodt Inc., USA  
 SO PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

## STN Columbus

PI	WO 2000050093	A1	20000831	WO 2000-US1322	20000120
	W: CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6228344	B1	20010508	US 1999-258148	19990226
	CA 2360421	AA	20000831	CA 2000-2360421	20000120
	EP 1154802	A1	20011121	EP 2000-902449	20000120
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002537363	T2	20021105	JP 2000-600703	20000120
PRAI	US 1999-258148	A	19990226		
	US 1997-816332	A2	19970313		
	WO 2000-US1322	W	20000120		
AB	A method of measuring physiol. function of a group of body cells, includes the step of selecting a detectable agent capable of emitting a measurable electromagnetic emission. The agent is introduced into body fluid which contacts the group of body cells. The emission is measured, and physiol. function is detd. based on measurement of the emission. <b>Fluorescent</b> dyes conjugated to physiol. acceptable polyanionic carriers are used.				

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 15 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 133:182562 CA  
 TI Testing and prevention of membrane fouling in RO applications using Dequest antiscalants  
 AU Trehy, Michael L.; Ledent, Michel  
 CS Marketing Technical Service, Solutia Inc, St. Louis, MO, 63166-6760, USA  
 SO Preprints of Extended Abstracts presented at the ACS National Meeting, American Chemical Society, Division of Environmental Chemistry (2000), 40(2), 291-292  
 CODEN: PEACF2; ISSN: 1524-6434  
 PB American Chemical Society, Division of Environmental Chemistry  
 DT Journal  
 LA English  
 AB Simple lab. testing procedures to evaluation the ability of additives to prevent the pptn. of sparingly sol. inorg. compds. and to disperse suspended colloidal or particulate matter are discussed. The National Assocn. of Corrosion Engineers (NACE) published methods to evaluate the ability of additives to inhibit pptn. of minerals in water which are typically complete in 20 h. Results using NACE method for CaSO<sub>4</sub> are presented. Low mol. wt. polyacrylates, polyaspartic acid and phosphates, particularly Dequest 2000, Dequest 2054, and Dequest 2066, were highly effective in preventing CaSO<sub>4</sub> **scale** by threshold **scale** inhibition. The importance of testing under conditions similar to that present in reject water were demonstrated.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 127:83155 CA  
 TI Gypsum **scale** formation on heat exchanger surfaces: the influence of poly(acrylic acid), poly(aspartic acid), and poly(glutamic acid)  
 AU Amjad, Zahid  
 CS B.F. GOODRICH COMPANY, Advanced Technology Group, Cleveland, OH, 44141, USA  
 SO Acta Polytechnica Scandinavica, Chemical Technology Series (1997), 244, 56-58

CODEN: APSCF4  
 PB Finnish Academy of Technology  
 DT Journal  
 LA English  
 AB The performance of anionic polymers was examd. as potential inhibitors for inhibition of formation of gypsum **scale** (CaSO<sub>4</sub> dihydrate) from supersatd. CaSO<sub>4</sub> solns. on brass heat exchanger surfaces. Anionic polymers studied were: (1) poly(acrylic acid), (2) poly(aspartic acid), and poly(glutamic acid). At 0.20 ppm inhibitor concn., all three of the above compds. were effective in inhibiting **scale** formation, of which poly(acrylic acid) was the most active. In contrast, use of a cationic polymer [poly(diallyldimethylammonium chloride)] and a neutral polymer (polyacrylamide) resulted in only a slight decrease in **scale** formation.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 126:306204 CA  
 TI Polyaspartate **scale** inhibitors - biodegradable alternatives to polyacrylates  
 AU Ross, Robert J.; Low, Kim C.; Shannon, James E.  
 CS Donlar Corp., Bedford Park, IL, 60501, USA  
 SO Materials Performance (1997), 36(4), 53-57  
 CODEN: MTPFB1; ISSN: 0094-1492  
 PB NACE International  
 DT Journal  
 LA English  
 AB Polyaspartates are highly biodegradable alternatives to polyacrylate-based **scale** inhibitors. This article presents lab. **testing** data on **polyaspartate** inhibitors of calcium and barium mineral **scales**. The optimum mol. wt. (Mw) for polyaspartate inhibitors of calcium carbonate, calcium sulfate, and barium sulfate mineral **scales** was detd. to be between 1,000 Mw and 4,000 Mw. For inhibition of calcium carbonate and barium sulfate, polyaspartates in the range of 3,000 Mw to 4,000 Mw were most effective. For calcium sulfate inhibition, the optimum Mw lies in the 1,000 Mw to 2,000 Mw range. Biodegradability data (OECD 301B Ready Biodegradability) on polyaspartates of a variety of Mw is also presented, which demonstrates the high biodegradability of this class of mineral **scale** inhibitors.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 18 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 124:25014 CA  
 TI Validated **fluorimetric** HPLC analysis of acetaldehyde in hemoglobin fractions separated by cation exchange chromatography: three new peaks associated with acetaldehyde  
 AU Chen, Hui-Min; Scott, B. Keyes; Braun, Karen P.; Peterson, Charles M.  
 CS Sansum Med. Res. Found., Santa Barbara, CA, USA  
 SO Alcoholism: Clinical and Experimental Research (1995), 19(4), 939-44  
 CODEN: ACRSDM; ISSN: 0145-6008  
 PB Williams & Wilkins  
 DT Journal  
 LA English  
 AB Stable Hb-acetaldehyde adducts present in Hb fractions sepd. by **polyaspartic** acid cation exchange chromatog. were **quantified** by **fluorimetric** HPLC. The **fluorescent** species eluted from the HPLC was confirmed by mass spectrometry to be consistent with the expected product

from reaction of acetaldehyde, 1,3-cyclohexanedione (CHD), and ammonium ion. Hemolyzate (2.2 mM Hb) was incubated in equiv. vols. of either phosphate-buffered saline or 5 mM acetaldehyde at 37° for 30 min and washed three times with H<sub>2</sub>O to remove free acetaldehyde and labile adducts before the injection of 14.7 mg Hb onto the cation exchange column. **Fluorimetric** HPLC anal. of hemolyzate samples either with or without in vitro reaction with acetaldehyde revealed that most acetaldehyde resides in the Hb A0 fraction. The reaction with acetaldehyde in vitro resulted in a significant increase in fast-eluting minor Hb species on cation exchange chromatog. concomitant with increased acetaldehyde in the HbA1a+b, HbA1c, and HbA1-AcH fractions. We report three new cation exchange chromatog. peaks after reaction with acetaldehyde: HbA1-AcH-3, HbA1c-1, and HbA0-1. Each new peak was found to assoc. with a significant quantity of CHD-reactive acetaldehyde. These expts. provide addnl. evidence that stable adducts form between acetaldehyde and Hb and that these adducts occur in multiple Hb species sep'd. by cation exchange chromatog. Further characterization and structural assignment of these species are warranted in view of their potential utility as markers for ethanol intake.

L9 ANSWER 19 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 122:195857 CA

TI Biodegradation of thermally synthesized polyaspartate

AU Alford, Diana D.; Wheeler, A. P.; Pettigrew, Charles A.

CS Dep. Biological Sci., Clemson Univ., Clemson, SC, 29634, USA

SO Journal of Environmental Polymer Degradation (1994), 2(4), 225-36

CODEN: JEPDED; ISSN: 1064-7546

PB Plenum

DT Journal

LA English

AB Polyaspartate, synthesized using thermal method (thermal polyaspartate; TPA), has dispersant and crystn. inhibition activities. These activities suggest the polymer may be used in water treatment, paper processing, and as a detergent and paint additive. The com. potential for TPA is enhanced because it can be synthesized on a large **scale**; therefore, a study of the biodegrdn. of the polymer was conducted. TPA was produced by hydrolysis of a polysuccinimide synthesized by dry thermal polymn. of aspartic acid. The resulting polymer was a poly( $\alpha$ , $\beta$ -DL-aspartate) having a 70%  $\beta$  structure and contg. a racemic mixt. of aspartic acid. TPA was incubated with both dil. effluent and activated sludge from a **wastewater** treatment plant. Low-biomass effluent expts. showed changes in TPA mol. size concomitant with O demand induced by the polymer, suggesting TPA's susceptibility to at least partial biodegrdn. Low-biomass sludge expts. (SCAS, modified Strum) yielded ~70% mineralization of 20 mg/L TPA in 28 days, suggesting that a significant portion of the polymer was labile. High-biomass sludge expts. using <sup>14</sup>C-TPA at 1 mg/L, showed ~30% mineralization and 95% total removal of TPA carbon from soln. in 23 days, with most mineralization and removal occurring in <5 days. Addnl. short-term studies using a variety of particulate substrates, including activated sludge, confirmed that TPA is subject to removal from soln. by adsorption. From labeled TPA studies, it was concluded that TPA is subject to rapid removal and at least partial degrdn. in a **wastewater** treatment plant. Using gel and thin-layer chromatog., it was detd. that at least part of the unmineralized residue from high biomass **assays** was **polyaspartate**. It is speculated that TPA's unusual structure compared to natural proteins may limit the rate of proteolysis of the polymer and thus its overall degrdn. rate.

L9 ANSWER 20 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 117:43350 CA

TI Specific inhibition of *Physarum polycephalum* DNA-polymerase- $\alpha$ -primase by poly(L-malate) and related polyanions

AU Holler, Eggehard; Achhammer, Gunther; Angerer, Bernhard; Gantz, Birgit; Hambach, Christoph; Reisner, Hermine; Seidel, Bettina; Weber, Cornelia; Windisch, Christina; et al.

CS Inst. Biophys. Phys. Biochem., Univ. Regensburg, Regensburg, Germany

SO European Journal of Biochemistry (1992), 206(1), 1-6

CODEN: EJBCAI; ISSN: 0014-2956

DT Journal

LA English

AB Poly(L-malate) is an unusual polyanion found in nuclei of plasmodia of *P. polycephalum*. An investigation was carried out using enzymic and **fluorimetric** methods to det. whether poly(L-malate) and structurally related polyanions can interact with DNA-polymerase- $\alpha$ -primase complex and with histones of *P. polycephalum*. Poly(L-malate) is found to inhibit the activities of the DNA-polymerase- $\alpha$ -primase complex and to bind to histones. The mode of inhibition is competitive with regard to DNA in elongation and noncompetitive in the priming of DNA synthesis. Spermidine, spermine, and histones from *P. polycephalum* and from calf thymus bind to poly(L-malate) and antagonize the inhibition. The polyanions poly(vinyl sulfate), poly(acrylate), poly(L-malate), poly(D,L-malate), **poly(L-aspartate)**, **poly(L-glutamate)** have been **examd.** for their potency to inhibit the DNA polymerase. The degree of inhibition depends on the distance between neighboring charges, given by the no. of atoms (N) interspaced between them. Poly(L-malate) (N = 5) and poly(D,L-malate) (N = 5) are the most efficient inhibitors, followed by **poly(L-aspartate**) (N = 6), **poly(acrylate)** (N = 3), **poly(L-glutamate)** (N = 8), poly(vinyl sulfate) (N = 3). It is proposed that poly(L-malate) interacts with DNA-polymerase- $\alpha$ -primase of *P. polycephalum*. According to its phys. and biochem. properties, poly(L-malate) may alternatively function as a mol. chaperone in nucleosome assembly in the S phase and as both an inhibitor and a stock-piling agent of DNA-polymerase- $\alpha$ -primase in the G2 phase and M phase of the plasmodial cell cycle.

L9 ANSWER 21 OF 22 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 110:63664 CA

TI Hemoglobin, transferrin and albumin/**polyaspartic** acid microspheres as carriers for the cytotoxic drug adriamycin. I. Ultrastructural appearance and drug content

AU Chen, Yan; Willmott, N.; Anderson, J.; Florence, A. T.

CS Sch. Pharm. Pharmacol., Univ. Strathclyde, Glasgow, G1 1XW, UK

SO Journal of Controlled Release (1988), 8(2), 93-101

CODEN: JCREEC; ISSN: 0168-3659

DT Journal

LA English

AB Microspheres prep'd. from transferrin, Hb and **polyaspartic** acid in admixt. with albumin were evaluated as alternative to albumin systems as vehicles for the anticancer drug adriamycin. Electron microscopy showed that transferrin and albumin/**polyaspartic** acid (195 mg/5 mg) microspheres are similar to albumin, possessing neither internal discontinuities nor surface pores, whereas Hb microspheres exhibit both. Assessment of drug content revealed that transferrin (6.9  $\mu$ g/mg) and Hb microspheres (8.6  $\mu$ g/mg) contained amts. of adriamycin that were not significantly different to albumin (9.0  $\mu$ g/mg), whereas incorporation of **polyaspartic** acid into the albumin system led to an increase of 3-4

STN Columbus

fold in native drug content. For albumin/polyaspartic acid microspheres values for drug content were in close agreement when assessed by HPLC and total fluorescence measurements, whereas for microspheres prep'd. from pure proteins total fluorescence values were 34-100% higher. An adriamycin-derived species was detected in albumin, but not albumin/polyaspartic acid microspheres, that did not co-chromatograph with native drug on TLC. Together these data indicate that a proportion of drug is present in other than native form in microspheres prep'd. from pure proteins.

L9 ANSWER 22 OF 22 CA COPYRIGHT 2005 ACS on STN

## Full Text

AN 66:16961 CA

TI Extending the range of application of the Edman method. Application to short peptides in small amounts

AU Nedkov, P.; Genov, N.

CS Bulgarian Acad. Sci., Sofia, Bulg.

SO Biochimica et Biophysica Acta (1966), 127(2), 541-5

CODEN: BBACAO ISSN: 0006-3002

DT Journal

AB A micromodification of the phenylthiohydantoin method for the degradation of peptides was devised, whereby the full sequences from the N- to the C-terminal residues of Thr-Ala-Leu, Glu-Ala-Leu-Ile, and Ala-Leu-Glu-Phe-Arg were detd. in amts. of 0.2 micromole. The method also made possible the detn. of the amides of glutamic and aspartic acids. To det. the N-terminal residue to the starting or shortened peptide, a combination of the **fluorescent** end-group reagent (1-dimethylamino-5-naphthalenesulfonyl chloride) of Gray and Hartley (CA 60, 9507b) and thin-layer chromatography was used. Silica gel G plates were used for the latter, developing the 1-dimethylamino-5-naphthalenesulfonyl derivs. with  $\text{CHCl}_3\text{-AcOEt-MeOH-AcOH}$  (9:15:4.5:0.2) or  $\text{AcOEt-iso-PrOH-concd. NH}_3$  (8:20:6).

$$\Rightarrow \log y$$

COST IN U.S. DOLLARS

SINCE FILE TOTAL  
ENTRY SESSION

FULL ESTIMATED COST

ENR 31 204 09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL  
ENTRY SESSION

**CA SUBSCRIBER PRICE**

-14 96 -14 96

STN INTERNATIONAL LOGOFF AT 16:07:25 ON 09 FEB 2005

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 01 New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!  
NEWS 4 OCT 28 KOREAPAT now available on STN  
NEWS 5 NOV 30 PHAR reloaded with additional data  
NEWS 6 DEC 01 LISA now available on STN

STN Columbus

NEWS 7 DEC 09 12 databases to be removed from STN on December 31, 2004  
NEWS 8 DEC 15 MEDLINE update schedule for December 2004  
NEWS 9 DEC 17 ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 10 DEC 17 COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 11 DEC 17 SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 12 DEC 17 CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 13 DEC 17 THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB  
NEWS 14 DEC 30 EPFULL: New patent full text database to be available on STN  
NEWS 15 DEC 30 CAPLUS - PATENT COVERAGE EXPANDED  
NEWS 16 JAN 03 No connect-hour charges in EPFULL during January and February 2005  
NEWS 17 JAN 26 CA/CAPLUS - Expanded patent coverage to include the Russian Agency for Patents and Trademarks (ROSPATENT)  
  
NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 16:15:27 ON 09 FEB 2005

=> file ca  
COST IN U.S. DOLLARS  
SINCE FILE ENTRY TOTAL  
SESSION  
FULL ESTIMATED COST 0.21 0.21

FILE 'CA' ENTERED AT 16:15:36 ON 09 FEB 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is

strictly prohibited.

FILE COVERS 1907 - 3 Feb 2005 VOL 142 ISS 7  
 FILE LAST UPDATED: 3 Feb 2005 (20050203/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s amino acid homopolymers/ti and capillary gel electrophoresis/ti  
 180603 AMINO/TI  
 6 AMINOS/TI  
 180607 AMINO/TI  
 ((AMINO OR AMINOS)/TI)  
 788601 ACID/TI  
 261645 ACIDS/TI  
 1029410 ACID/TI  
 ((ACID OR ACIDS)/TI)  
 1180 HOMOPOLYMERS/TI  
 11 AMINO ACID HOMOPOLYMERS/TI  
 ((AMINO(W)ACID(W)HOMOPOLYMERS)/TI)  
 37582 CAPILLARY/TI  
 2379 CAPILLARIES/TI  
 39722 CAPILLARY/TI  
 ((CAPILLARY OR CAPILLARIES)/TI)  
 65915 GEL/TI  
 18609 GELS/TI  
 83742 GEL/TI  
 ((GEL OR GELS)/TI)  
 37426 ELECTROPHORESIS/TI  
 242 CAPILLARY GEL ELECTROPHORESIS/TI  
 ((CAPILLARY(W)GEL(W)ELECTROPHORESIS)/TI)  
 L1 1 AMINO ACID HOMOPOLYMERS/TI AND CAPILLARY GEL ELECTROPHORESIS/TI

=> d his

(FILE 'HOME' ENTERED AT 16:15:27 ON 09 FEB 2005)

FILE 'CA' ENTERED AT 16:15:36 ON 09 FEB 2005  
 L1 1 S AMINO ACID HOMOPOLYMERS/TI AND CAPILLARY GEL ELECTROPHORESIS/

=> d bib,ab

L1 ANSWER 1 OF 1 CA COPYRIGHT 2005 ACS on STN

Full Text

AN 118:142831 CA  
 TI Separation of amino acid homopolymers by capillary gel electrophoresis  
 AU Dolnik, Vladislav; Novotny, Milos V.  
 CS Dep. Chem., Indiana Univ., Bloomington, IN, 47405, USA  
 SO Analytical Chemistry (1993), 65(5), 563-7  
 CODEN: ANCHAM; ISSN: 0003-2700  
 DT Journal  
 LA English  
 AB Gel-filled capillaries using highly concd. and moderately cross-linked acrylamide-type gels in capillary electrophoresis were successfully applied to the sepn. of the individual oligomers of various poly(amino acids). Mixts. of both anionic and cationic nature were adequately resolved. While UV detection at 220 nm was mostly used, the polyanions with N-terminal groups can also be tagged with 3-(4-carboxybenzoyl)-2-quinolincarboxaldehyde (CDQCA) for a more sensitive detection by a

STN Columbus

laser-induced fluorescence detector.

=> log y		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	14.17	14.38
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.68	-0.68

STN INTERNATIONAL LOGOFF AT 16:16:49 ON 09 FEB 2005